

WHAT IS CLAIMED IS:

1. A semiconductor device characterized in that;
having a plural of solder resist between a pair of mounting pad
line set up nearly parallel to said mounting pad line each other;
said solder resist constructing up to a corner portion of said
5 mounting pad lines so as to spread a sealing resin uniformity when said
semiconductor device is set on said mounting pad.
2. A semiconductor device characterized in that;
having a plural of solder resist between a pair of mounting pad
line set up nearly parallel to said mounting pad line each other;
said solder resist divided and constructed up to a corner portion
5 of said mounting pad lines so as to feed a sealing resin spreading
uniformity when said semiconductor device is set on said mounting pad.
3. A semiconductor device characterized in that;
having a plural of solder resist between a pair of mounting pad
line set up nearly parallel to said mounting pad lines each other;
said solder resist divided and constructed up to a corner portion
5 of said mounting pad lines so as to feed a sealing resin spreading
uniformity when said semiconductor device is set on said mounting pad.
4. A semiconductor device characterized in that;
having a plural of solder resist between two pairs of mounting
pad line set up nearly parallel to said mounting pad lines each other;
said solder resist divided diagonal direction formed by said two
5 pairs of mounting pad line up to a corner portion of said mounting pad
line so as to feed a sealing resin spreading uniformity when said
semiconductor device is set on said mounting pad.

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5. A semiconductor device mounting method in which on a substrate on which a mounting pad including a mounting section is formed, sealing resin is supplied by one-point coating onto a central position of the mounting section, a semiconductor device including a plurality of projected electrodes is placed on the substrate, and the resin is heated under a predetermined pressure to thereby mount the semiconductor device onto the substrate, comprising the steps of:

arranging in the mounting section a plurality of solder resist zones to orient a flow of the sealing resin in a predetermined direction, the zones projecting upward;

mounting the semiconductor device on the mounting section and supplying thereby the sealing resin in a circumferential area of the semiconductor device mounted on the substrate; and

forming with the sealing resin a filet in the circumferential area, the filet being uniform in quantity of resin.

6. The semiconductor device mounting method in accordance with claim 5, wherein the solder resist zones has a thickness ranging from $10\text{ }\mu\text{ m}$ to $30\text{ }\mu\text{ m}$.

7. The semiconductor device mounting method in accordance with claim 5, wherein the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion ratio of cured resin, the contraction ratio larger than the expansion ratio.

8. The semiconductor device mounting method in accordance with claim 5, wherein the solder resist zones has a thickness ranging from $10\text{ }\mu\text{ m}$ to $30\text{ }\mu\text{ m}$ and the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion ratio of cured resin, the contraction ratio larger than the

expansion ratio.

9. A semiconductor device mounting method in which on a substrate on which a mounting pad including a mounting section is formed, sealing resin is supplied by one-point coating onto a central position of the mounting section, a semiconductor device including a plurality of projected electrodes is placed on the substrate, and the resin is heated under a predetermined pressure to thereby mount the semiconductor device onto the substrate, comprising the steps of:

arranging in the mounting section a plurality of solder resist zones to orient a flow of the sealing resin in a predetermined direction, the zones projecting upward;

mounting the semiconductor device on the mounting section and supplying thereby the sealing resin in a circumferential area of the semiconductor device mounted on the substrate;

forming with the sealing resin a filet in the circumferential area, the filet being uniform in quantity of resin; and

further comprising the step of arranging, on an inner side of the mounting pad on the substrate, the solder resist zones each of which has a rectangular contour,

the solder resist zones being respectively parallel to edges of the semiconductor device mounted on the substrate.

10. The semiconductor device mounting method in accordance with claim 9, wherein the solder resist zones has a thickness ranging from $10\text{ }\mu\text{ m}$ to $30\text{ }\mu\text{ m}$.

11. The semiconductor device mounting method in accordance with claim 9, wherein the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion

ratio of cured resin, the contraction ratio larger than the expansion ratio.

12. The semiconductor device mounting method in accordance with claim 9, wherein the solder resist zones has a thickness ranging from $10\ \mu\text{m}$ to $30\ \mu\text{m}$ and the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion ratio of cured resin, the contraction ratio larger than the expansion ratio.

13. A semiconductor device mounting method in which on a substrate on which a mounting pad including a mounting section is formed, sealing resin is supplied by one-point coating onto a central position of the mounting section, a semiconductor device including a plurality of projected electrodes is placed on the substrate, and the resin is heated under a predetermined pressure to thereby mount the semiconductor device onto the substrate, comprising the steps of:

arranging in the mounting section a plurality of solder resist zones to orient a flow of the sealing resin in a predetermined direction, the zones projecting upward;

mounting the semiconductor device on the mounting section and supplying thereby the sealing resin in a circumferential area of the semiconductor device mounted on the substrate;

forming with the sealing resin a filet in the circumferential area, the filet being uniform in quantity of resin; and further comprising the step of arranging, on an inner side of the mounting pad on the substrate, the solder resist zones each of which has a trapezoidal contour,

the trapezoidal contour including a lower edge on an outer side of the mounting section and an upper edge on a central side of the mounting section, the upper edge being longer than the lower edge,

the upper and lower edges being parallel to an associated one of edges of the semiconductor device mounted on the substrate.

14. The semiconductor device mounting method in accordance with claim 13, wherein the solder resist zones has a thickness ranging from $10\ \mu\text{m}$ to $30\ \mu\text{m}$.

15. The semiconductor device mounting method in accordance with claim 13, wherein the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion ratio of cured resin, the contraction ratio larger than the expansion ratio.

16. The semiconductor device mounting method in accordance with claim 13, wherein the solder resist zones has a thickness ranging from $10\ \mu\text{m}$ to $30\ \mu\text{m}$ and the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion ratio of cured resin, the contraction ratio larger than the expansion ratio.

17. A semiconductor device mounting method in which on a substrate on which a mounting pad including a mounting section is formed, sealing resin is supplied by one-point coating onto a central position of the mounting section, a semiconductor device including a plurality of projected electrodes is placed on the substrate, and the resin is heated under a predetermined pressure to thereby mount the semiconductor device onto the substrate, comprising the steps of:

arranging in the mounting section a plurality of solder resist zones to orient a flow of the sealing resin in a predetermined direction, the zones projecting upward;

mounting the semiconductor device on the mounting section

and supplying thereby the sealing resin in a circumferential area of the semiconductor device mounted on the substrate;

forming with the sealing resin a filet in the circumferential
15 area, the filet being uniform in quantity of resin; and
further comprising the step of arranging, on an inner side of the mounting pad on the substrate, two solder resist zones each of which has a trapezoidal contour, the zones opposing each other,

the trapezoidal contour including a lower edge on an outer side
20 of the mounting section and an upper edge on a central side of the mounting section, the lower edge being longer than the upper edge,

the upper and lower edges being parallel to a longer edge of the rectangular contour of the semiconductor device mounted on the substrate,

25 the method further comprising the step of arranging, on an inner side of the mounting pad on the substrate, two solder resist zones each of which has a triangular contour, the zones opposing each other,

the triangular contour including a bottom edge on a peripheral side of the mounting section and a vertex opposing the bottom edge on a
30 central side of the mounting section,

the bottom edge being parallel to a shorter edge of the semiconductor device mounted on the substrate.

18. The semiconductor device mounting method in accordance with claim 17, wherein the solder resist zones has a thickness ranging from $10\text{ }\mu\text{ m}$ to $30\text{ }\mu\text{ m}$.

19. The semiconductor device mounting method in accordance with claim 17, wherein the sealing resin is an epoxy-based instantaneous thermosetting resin having a contraction ratio and an expansion ratio of cured resin, the contraction ratio larger than the expansion ratio.

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